## Claim Listing

1. (Original) A magnetorheological device comprising:

a generally cylindrically shaped housing having cylindrical walls and a divider within said housing;

said housing includes an integral end portion and an end plate removably attached to said cylindrically shaped housing;

a rotary impeller having two paddles mounted within said housing; said rotary impeller sealingly engaging said divider;

said paddles in combination with said cylindrical walls, said divider, said integral end portion of said housing, and said end plate of said housing form a first chamber and a second chamber;

a magnetorheological fluid residing in said chambers;

a passageway interconnecting said first and second chambers; and,

a coil surrounding a portion of said passageway enabling the viscosity of the magnetorheological fluid to be varied.

- 2. (Original) A magnetorheological device as claimed in claim 1 wherein said coil is a direct current coil.
- 3. (Original) A magnetorheological device as claimed in claim 1 wherein said coil is an alternating current coil.
  - 4. (Withdrawn) A magnetorheological device as claimed in claim 2 further

comprising a permanent magnet mounted in proximity to said passageway.

- 5. (Withdrawn) A magnetorheological device as claimed in claim 3 further comprising a permanent magnet mounted in proximity to said passageway.
- 6. (Original) A magnetorheological device as claimed in claim 1 wherein said passageway is exterior to said housing.
- 7. (Original) A magnetorheological device as claimed in claim 1 wherein said passageway is interior to said housing.
- 8. (Original) A magnetorheological device as claimed in claim 1 further comprising a first edge seal extending from said first paddle and a second edge seal extending from said second paddle.
- 9. (Original) A magnetorheological device as claimed in claim 1 wherein said housing includes a third inner seal affixed to said integral end portion and a fourth seal affixed to said end plate.
- 10. (Original) A magnetorheological device as claimed in claim 6 wherein said passageway includes a tortuous path.
- 11. (Original)A magnetorheological device as claimed in claim 1 further comprising a first edge seal extending from said first paddle, a second edge seal extending from said second paddle, a third inner seal affixed to said integral end portion and a fourth seal affixed to said end plate.
  - 12. (canceled)
  - 13. (canceled)
  - 14. (canceled)

15. (Previously amended) A torsional magnetorheological device comprising:

a housing having a divider extending inwardly from said housing;
a hub having a first impeller and a second impeller rotatably mounted
within said housing;

said first impeller and said second impeller straddling said divider;
a first chamber formed by said first impeller and said divider and a second
chamber formed by said second impeller and said divider;

a passageway interconnecting said first and second chambers; magnetorheological fluid in said chambers and said passageway;

a magnetic field generated by a coil surrounding said passageway such that an increase in said field increases the viscosity of the magnetorheological fluid;

said magnetorheological fluid in said passageway being solidified upon application of a sufficient magnetic field thereto forming a plug in said passageway;

said hub and impellers rotatably pushing said magnetorheological fluid against said divider and said plug such that said magnetorheological fluid is in compression.